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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,002	11/07/2001	Jozef Herman Peter Bastiaens	08CN07467-1	5002

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EXAMINER

LEE, RIP A

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/683,002

Applicant(s)

BASTIAENS ET AL.

Examiner

Rip A. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 5-13, 16-21 and 23-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25, 32 and 33 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-13, 16-21, 23, 24, 26-31, 34 and 35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This office action follows a request for continued examination (RCE) under 37 § C.F.R. 1.114, filed on April 15, 2005. Claims 1, 21, 25, 26, 30, 31, 32, and 33 were amended. Claims 1, 2, 5-13, 16-21, and 23-35 are pending.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 2, 5-7, 10-13, 16, 17, 19-21, 24, 26-31, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyoshi *et al.* (U.S. 2001/0031831) in view of Yonemitsu *et al.* (U.S. 4,011,200) for the same reasons set forth in previous office actions.

Briefly, Miyoshi *et al.* discloses a composition comprising 35.1 wt % PPE, 47.2 wt % polyamide, 2.44 wt % of electroconductive filler, and 6.9 wt % SEBS impact modifier. Another composition was prepared using 6.8 wt % of SEP impact modifier. Use of a PPE copolymer is fully contemplated, the preferred copolymer being one containing 2,6-dimethyl-1,4-phenylene units and 2,3,6-trimethyl-1,4-phenylene units. The exact constitution of said copolymer, however, is not disclosed in the reference. Copolymers of this type are well known in the art. The patent of Yonemitsu *et al.* teaches that PPE copolymers based on 2,6-dimethylphenol containing 2-50 wt % of 2,3,6-trimethyl-1,4-phenylene units display excellent heat resistance and superior mechanical strength compared with homopolymer derived from 2,6-dimethylphenol. In view of the teachings of both references, one having skill in the art would have found it obvious to use a PPE copolymer containing 2-50 wt % of 2,3,6-trimethyl-1,4-phenylene units (as per Yonemitsu *et al.*) for the copolymer described in Miyoshi *et al.* The combination is obvious because use of such a copolymer is contemplated in the primary reference. As such, one would expect such a combination to work. Regarding the impact modifier component, it is maintained that one having ordinary skill in the art would find it obvious to use a combination of SEBS and SEP impact modifier since each member of the combination was shown individually to perform

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the same chemical function, and the skilled artisan would have expected such a combination to work. *In re Kerkhoven*, 205 USPQ 1069, 1072 (CCPA 1980); *In re Lindner*, 173 USPQ 356, 359 (CCPA 1972). In summary, it would have been obvious to one having ordinary skill in the art to arrive at present claim 1 based on the teachings of the prior art (see previous office action for rejections of dependent claims). One of ordinary skill in the art also would have found it obvious to arrive at the compositions set forth in present claims 21, 26, 30, and 31 since these are obvious variants of those compositions described in Miyoshi *et al.*

3. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyohsi *et al.* in view of Yonemitsu *et al.* and further in view of Patel *et al.* (U.S. 6,528,572) for the same reasons set forth previously.

4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyohsi *et al.* in view of Yonemitsu *et al.* and further in view of Gelbin (U.S. 6,277,907) for the same reasons set forth previously.

5. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyohsi *et al.* in view of Yonemitsu *et al.* and further in view of evidence furnished by Nakagawa *et al.* (JP 2001-302905).

Miyohsi *et al.* shows a process in which the composition is prepared in multiple zones (see Table 1), however, there is no clear indication that the electroconductive filler is added to the composition as a masterbatch, as indicated in the claim. The prior art of Nakagawa *et al.* teaches a similar process and indicates that carbon black is added as a masterbatch which is combined with the polyamide resin, as shown in Table 1. Upon comparing the data from both inventions, one of ordinary skill in the art would have found it obvious that Miyoshi *et al.* and Nakagawa *et al.* describe essentially the same processes, and thus, one of ordinary skill in the art would have found that the subject matter of the claim is rendered obvious by Miyoshi *et al.*

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6. Claims 1, 2, 6, 7, 10, 16, 17, 19, 21, 26, 27, 29-31, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kovoets *et al.* (EP 924 261) in view of Yonemitsu *et al.* for the same reasons set forth previously.

Kovoets *et al.* discloses impact modified compositions of polyphenylene ether-polyamide blends. The example show compositions comprised of 36 wt % of PPE, 48 wt % of polyamide, 6 wt % of SEBS and 7 wt % of SEP impact modifiers. PPE copolymers derived from 2,6-dimethylphenol and 2,3,6-trimethylphenol are also contemplated. However, the reference is silent with respect to the exact constitution of said PPE copolymer. Copolymers of this type are well known in the art. The patent of Yonemitsu *et al.* teaches that PPE copolymers based on 2,6-dimethylphenol containing 2-50 wt % of 2,3,6-trimethyl-1,4-phenylene units display excellent heat resistance and superior mechanical strength compared with homopolymer derived from 2,6-dimethylphenol. In view of the teachings of both references, one having skill in the art would have found it obvious to use a PPE copolymer containing 2-50 wt % of 2,3,6-trimethyl-1,4-phenylene units (as per Yonemitsu *et al.*) for the copolymer described in Koevoets *et al.* The combination is obvious because use of such a copolymer is contemplated in the primary reference. As such, one would expect such a combination to work. See previous office action for rejections of dependent claims. One of ordinary skill in the art also would have found it obvious to arrive at the compositions set forth in present claims 21, 26, 30, and 31 since these are obvious variants of those compositions described in Miyoshi *et al.*

Allowable Subject Matter

7. The following is a statement of reasons for the indication of allowable subject matter: Claims 25, 32, and 33 are allowed over the cited references. The claims have been amended to recite compositions consisting essentially of various components, and the impact modifier consists of SEBS and SEP copolymers, which would exclude components which are necessarily present in compositions of the prior art.

Response to Arguments

8. The rejection of claims under 35 U.S.C. 103(a) in view of Dhamarajan *et al.* have been withdrawn. The patent qualifies as a reference under 35 U.S.C. 102(e). Since the instant invention and that of the patent are commonly owned, the patent can not be used in an obviousness rejection under 35 U.S.C. 103(c).

9. Applicants also traverse the rejection of claims under 35 U.S.C. 103(a) in view of Miyoshi *et al.* and Kovoets *et al.* Although claims have been amended to limit the impact modifier component to SEBS and SEP copolymers, it is noted that the preamble of the claim still uses the open recitation "comprising." As such, unrecited components are not excluded by the claim. Whereas the references also teach use of carboxylic acid/anhydride modified polymers as impact modifier, they clearly teach use of SEBS and SEP copolymers. In this case, use of the term "impact modifier" is merely a matter of nomenclature for SEBS and SEP are also examples of impact modifier. The question to be addressed in the rejection is whether it is obvious to use a combination of 2,6- and 2,3,6- PPE derivatives in the case of Miyoshi *et al.* and Kovoets *et al.* and whether it is obvious to arrive at use of a combination of SEBS and SEP in the case of Miyoshi *et al.* To date, Applicants have not presented a case of non-obviousness with respect to the rejection at hand. In view of this and previous discussions, the rejections have not been withdrawn.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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June 7, 2005



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